ABSTRACT OF THE DISCLOSURE

An air conditioning, heating or refrigeration system includes a controller that

automatically determines if refrigerant amount is above or below the desired amount

within the system. In one example, a sensor measures the temperature difference

between sub-cooled liquid and saturated condensing temperature and provides

information to the controller. The controller determines a variance between the

measured and an expected value. If that variance exceeds a selected threshold, the

controller automatically determines that the amount of refrigerant in the system is

outside of an acceptable range.

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